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ABSTRACT

The Enrichment College Preparatory Program, an Elementary and Secondary Education Act, Title VII bilingual demonstration project at a Manhattan, New York City, high school, completed the final year of a two-year funding cycle in June 1983. The program, which provided cultural enrichment and advanced academic experiences to 160 intellectually gifted, bilingual students, consisted of three major components: (1) special Scholastic Aptitude Tests (S.A.T.) mathematics and English courses for 11th and 12th grade limited English proficiency students; (2) college advisement, consisting of workshops and conferences designed to assist students and their parents in choosing colleges, applying for entrance and for student loans, preparing for admissions interviews, and planning visits to college campuses; and (3) cultural activities organized for students in all grades to enhance social awareness by exposure to various artistic experiences. Students' test scores, college admissions, and reactions from cultural institutions visited clearly indicated that the program made great strides in its two-year existence. (Author/GC)

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LOUIS D. BRANDEIS HIGH SCHOOL

DEMONSTRATION BILINGUAL ENRICHMENT

COLLEGE PREPARATORY PROGRAM

1982-1983

OEE Evaluation Report

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O.E.E. Evaluation Report

February, 1984

Grant Number: G00-810-2475

LOUIS D. BRANDEIS HIGH SCHOOL

DEMONSTRATION BILINGUAL ENRICHMENT

COLLEGE PREPARATORY PROGRAM

1982-1983

Principal:
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A SUMMARY OF THE EVALUATION
OF THE DEMONSTRATION BILINGUAL ENRICHMENT
COLLEGE PREPARATORY PROGRAM
AT LOUIS D. BRANDEIS HIGH SCHOOL
1982-1983

The Enrichment College Preparatory Program, an E.S.E.A. Title VII bilingual demonstration project at Louis D. Brandeis High School, completed the final year of a two-year funding cycle in June, 1983. Under the supervision of the assistant principal of the bilingual education and foreign languages department, the program provided cultural enrichment and advanced academic experiences to approximately 160 intellectually gifted bilingual students to prepare them to compete with -- and facilitate achievement on the same level as -- mainstream students. As in the previous year, results of the Language Assessment Battery, Criterion Referenced English Syntax Test, and La Prueba de Lectura were used for student selection, in addition to students' past academic records and teacher recommendations. The final selection committee was composed of the project director, the enrichment/evaluation coordinator, and the college advisor.

The Enrichment Program consisted of three major components: special S.A.T. mathematics and English courses for eleventh- and twelfth-grade LEP students whose level of proficiency in both math and English fulfilled the program's high standards; college advisement for eleventh and twelfth graders consisting of workshops and conferences designed to assist students and their parents in choosing colleges, applying for entrance and student loans, preparing for admissions interviews, and planning visits to college campuses both within and outside the city and state; and cultural activities organized for students in all grades to enhance social awareness by exposure to various artistic experiences. This component included trips to museums, plays, and musical events of all types, and was accompanied by pre-event preparation and post-event discussion.

The program made great strides in its two-year existence, as students' test scores, college admissions, and reactions from cultural institutions visited clearly indicate. Although cultural enrichment could not be statistically measured, there was nonetheless marked improvement in program students' self-image during the course of the cultural activity phase. Many participating students did honors work and were involved with mainstream students in extracurricular activities in respected leadership roles. Virtually all had parental encouragement and support.

Title VII funds supported the project director, the bilingual secretary, two S.A.T. teachers, three paraprofessionals, and part of the services of the enrichment/evaluation coordinator and the bilingual college advisor. Staff development activities included monthly department and staff meetings and attendance at outside conferences and work-

shops. Parents of participating students attended parent meetings and reportedly were eager to have their children participate in program activities.

Students were assessed in English language achievement (New York City Oral Language Ability Rating Scale, Criterion Referenced English Syntax Test, and program-developed test); ability in their native language (Interamerican Series, La Prueba de Lectura); mathematics, (New York Regents Examinations in algebra and geometry and teacher-made tests); science and social studies (teacher-made tests); and attendance (school and program records). Quantitative analysis of student achievement indicates that:

--Program students demonstrated an overall improvement of at least one scale point in the expressive mode of the Rating Scale of Pupil's Ability to speak English. Students in the receptive mode came close to, but failed to meet the proposed criteria.

--Program students tested on CREST Levels I and II mastered on the average, the 1.5 objectives per month established as the program objective.

--The performance of program students was found to be both statistically and educationally significant on La Prueba de Lectura.

--Overall passing rates in mathematics, science, and social studies exceeded 70 percent in both the fall and spring.

--At least 70 percent of the students taking the New York State Regents Examinations in algebra and geometry received passing grades, thus exceeding the established criteria.

--Eleventh-grade students demonstrated statistically significant growth on program-developed tests patterned after the Scholastic Aptitude Tests in English and mathematics.

--The attendance rate of program students was significantly higher than the attendance of the general school population.

The following recommendations are aimed at improving the overall effectiveness of future services to similar populations:

--Continuing both the program's cultural activities and the special S.A.T. math and E.S.L. classes as an integral part of Brandeis' bilingual services;

--Preparing a handbook to record the program's experiences for use in other schools with similar populations;

--Identifying a bilingual school guidance counselor to serve Brandeis' large Hispanic population;

--If resources permit, considering adding the college advisor position to the school's regular staff;

--Providing adequate staff activities to provide for the professional and academic development of the teaching and administrative staff;

--Continuing to address inter-staff differences over the methods and goals of bilingual education so that staff efforts will reach their optimum potential.

ACKNOWLEDGEMENTS

The production of this report, as of all O.E.E. Bilingual Education Evaluation Unit reports, is the result of a cooperative effort of permanent staff and consultants. In addition to those whose names appear on the cover, Margaret Scorza has reviewed and corrected reports, coordinated the editing and production process, and contributed to the quality of the work in innumerable ways. Karen Chasin has spent many hours creating, correcting, and maintaining data files. Joseph Rivera has worked intensely to produce, correct, duplicate, and disseminate reports. Without their able and faithful participation the unit could not have handled such a large volume of work and still produced quality evaluation reports.

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DEMONSTRATION BILINGUAL ENRICHMENT
COLLEGE PREPARATORY PROGRAM

LOUIS D. BRANDEIS HIGH SCHOOL

Location:	145 West 84th Street New York, New York 10024
Year of Operation:	1982-1983, second and final year of funding
Target Language:	Spanish
Number of Participants:	Approximately 175 students
Principal:	Mr. Murray Cohn
Project Director:	Ms. Emilia Cardona

INTRODUCTION

The Demonstration Bilingual Enrichment College Preparatory Program at Louis D. Brandeis High School completed its final year of a two-year Title VII funding cycle in June, 1983. It was, however, the first complete operational year since, due to late funding notification and the lengthy process of determining student eligibility, full program implementation was delayed until February, 1982.

The enrichment program served approximately 175 students in fall, 1982, and 160 students in spring, 1983, and thus did not reach its proposed per semester enrollment of 250. First year emphases and goals remained the same in 1982-83 -- the entry of more bilingual students into institutions of higher learning -- and the program remained the city's only project specifically designed to address the needs of "academically more able students" of limited English proficiency (LEP).

The Enrichment Program continued to function in a supplementary fashion to the high school's larger bilingual department, itself the oldest and largest tax-levy high school bilingual program in New York City. The program's three major components continued to include cultural activities, special S.A.T. mathematics and English courses (geared to college entrance examinations), and college advisement.

I. CONTEXT

Brandeis High School stands on Manhattan's upper west side, surrounded this year by even more new and expensive boutiques, restaurants, and general purpose shops located on Amsterdam and Columbus Avenues, and further west and east on Broadway and Central Park West. Its immediate vicinity, however, remains a low-income area populated largely by Hispanics, but supplemented by a newly arriving Haitian contingent. (See evaluation report from the previous year for more detailed description of the demographic context.)

The high school's twenty-one year old building is now being prepared to receive an additional group of students formerly housed at Brandeis' 65th Street Annex which is being closed. A considerable amount of restructuring is thus anticipated for the 1983-84 school year.

The Enrichment Program continued to share its offices with the E.S.L. (English as a second language) coordinator and the assistant to the chairman of the bilingual department. The bilingual department chair (the assistant principal for foreign languages and bilingual education) occupies an office immediately adjacent to the Enrichment Program.

The brightly colored bulletin board outside the Enrichment Program office continued to announce with pride students' achievements, listing names of those doing honors work, as well as sample letters of congratulation from cultural organizations in the city to which the program had organized student visits. The program director also continued the "open-door" office policy that had been in effect since the program's inception.

II. STUDENT CHARACTERISTICS

Enrichment Program students were drawn from two sources: the existing bilingual and mainstream programs at Brandeis High School, and directly from feeder intermediate and junior high schools in Brandeis' broader service area. Student entrance criteria remained the same (see last year's evaluation report, p. 4), with two small adjustments: the selection committee was limited to the project director, the enrichment/evaluation coordinator, and the college advisor; and teacher recommendation became a principal criterion in student selection. The same countries of origin were represented in 1982-83 as had been in the program the previous year with some additions (see Table 1 for the distribution of students by country of origin).

Table 2 presents the number and percentages of program students by sex and grade. Because the majority of these students are immigrants, their educational histories may vary considerably. Many have suffered interrupted schooling, or, because of a lack of educational opportunities in their countries of origin, have received fewer years of education than their grade level would indicate. Program students are reported by age and grade in Table 3. Approximately 40 percent of the students are overage for their grade. Table 4 presents the time spent by students in the Enrichment Program, by grade.

An interesting contrast between Enrichment Program students and Brandeis' general bilingual population continued: the Title VII staff noted that while most students in the bilingual program at large come from single-parent homes widely scattered throughout the Brandeis service area,

TABLE 1

Number and Percent of Program Students by Country of Birth

Country of Birth	Number	Percent
Puerto Rico	13	7
Dominican Republic	104	54
Cuba	4	2
Other "Caribbean"	1	less than 1
Mexico	2	1
Honduras	4	2
Guatemala	3	2
Costa Rica	15	8
El Salvador	1	less than 1
Colombia	5	3
Ecuador	28	14
Peru	4	2
Chile	1	less than 1
Bolivia	1	less than 1
Paraguay	2	1
Venezuela	1	less than 1
Central and South America (country unspecified)	2	1
U.S.	3	2
TOTAL	194	100

•Fifty-four percent of the students were born in the Dominican Republic.

•Only three students were born in the United States.

TABLE 2

Number and Percent of Program Students by Sex and Grade

Grade	Number Male Students	Percent of Grade	Number Female Students	Percent of Grade	Total Number	Percent of All Students
9	9	43	12	57	21	11
10	23	56	18	44	41	21
11	32	44	40	56	72	37
12	25	42	34	58	59	31
TOTAL	89	46[a]	104	54[a]	193	100

[a]Percent of all program students.

- Female students outnumber male students at all grade levels, except grade ten.
- Most Enrichment Program students are in the eleventh grade.

TABLE 3

Number of Program Students by Age and Grade

Age	Grade 9	Grade 10	Grade 11	Grade 12	Total
15	8	7	1	0	16
16	6	15	13	3	37
17	3	15	23	9	53
18	2	3	19	26	50
19	2	2	8	16	28
20	0	0	5	4	9
21	0	0	0	1	1
TOTAL	21	42	72	59	194
Overage Students					
Number	13	20	32	21	86
Percent	62	48	44	36	44

Note. Shaded boxes indicate expected age range for grade.

- Forty-four percent of the students are overage for their grade.
- The proportion of overage students decreases as grade increases.

TABLE 4

Time Spent in the Bilingual Program[a]

(As of June, 1983)

Time Spent in Bilingual Program	Number of Students Grade 9	Grade 10	Grade 11	Grade 12	Totals
1 Academic Year	21	33	43	12	109
2 Academic Years	0	9	29	47	85
TOTALS	21	42	72	59	194

[a]Rounded to the nearest year.

- At the end of the program, 56 percent of the students had participated for one year.
- Forty-four percent of the students had completed two years in the program. Most of these students were twelfth graders.

many Enrichment Program students live with both parents and most come from the school's immediate vicinity (a contrast that may be of some sociological significance in terms of the characteristics of single- versus double-parent families).

Academically, Enrichment Program students continued to display a high level of literacy in their native language, unlike students in the general bilingual program, whose native language literacy has a broad range. Entering Enrichment Program students were all potentially high achievers (despite their limited English proficiency), as indicated by their math and content-area scores. According to the college advisor, a "spirit of competition" characterized the Enrichment Program population in 1982-83, in part due to students' greater awareness of the program's methods and ultimate goals in the second year of operation.

Finally, a statistic from Brandeis' total program provides a striking capsule view of the character and calibre of the high school's bilingual student population: 76 percent of Brandeis' students are college bound, and 84 percent of that portion are students in the bilingual department.

III. PROGRAM DESCRIPTION

GOALS AND OBJECTIVES

The Enrichment Program's goals remained identical to those of the previous year (see p. 10 of the 1981-82 report). Fortunately, an increase in funding in the area of college advisement made student college trips possible for the first time this year, and greatly strengthened that program component. Unfortunately, by contrast, a decrease in administrative funding necessitated cutting the activities of the enrichment/evaluation coordinator and the college advisor by 40 and 25 percent respectively, and the division of energies that resulted considerably lessened the overall improvement that might have been realized.

For evaluation, the program proposed the following instructional objectives:

1. It was expected that students rated D-F and 4-6 would improve an average of one scale point in both expressive and receptive modes when post-test results of the New York City Oral Language Ability Rating Scale were submitted to analysis.

2. Students participating in the E.S.L. sequence would master an average of 1.5 objectives per month of treatment as determined on the Criterion Referenced English Syntax Test.

3. After two years in the program, students participating in mainstream English and reading classes, would demonstrate a statistically significant improvement beyond the .05 level of probability between pre- and post-tests on the New York City Reading Test.

4. At the end of the eleventh grade, students participating in the program would demonstrate statistically significant growth beyond the .05 level of probability between pre- and post-testing on program-developed tests patterned after the Scholastic Aptitude Tests in English and Mathematics.

5. Students participating in the program would improve and continue to develop their reading skills in the native language and would demonstrate a statistically significant improvement beyond the .05 level of probability between pre- and post-testing on the Interamerican Series Reading Comprehensive Test (Prueba de Lectura).

6. It was expected that 60 percent of program participants would pass the New York State Algebra and Geometry Regents.

7. It was expected that 70 percent of the participants would attain the criterion level set for passing subject content when post-test results of teacher-made final examinations in mathematics and science were submitted to analysis, and 65 percent of the participants would attain the criterion level in social studies.

8. At the completion of the training sequence, program participants would have acquired the skills necessary for gaining admissions to private universities by receiving satisfactory ratings in workshops on selecting appropriate universities for the academic career they wished to pursue, completing application forms, and mock college admissions interviews.

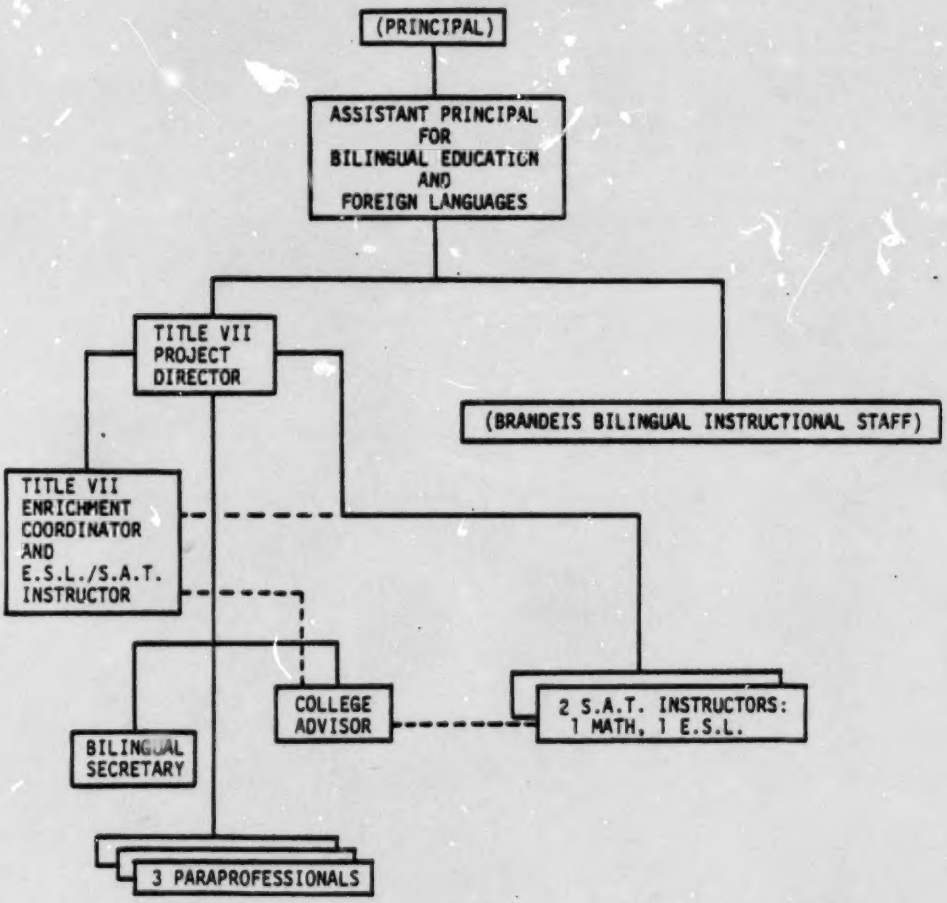
ORGANIZATION, STAFFING, AND FUNDING

The Enrichment Program continued to function within the larger Brandeis bilingual department headed by the assistant principal for bilingual education and foreign languages. According to this individual, the only structural change in the 1982-83 program was the reallocation of program staff time to certain tasks, due to funding cuts. Furthermore, lines of communication had been improved and delegation of responsibility clarified since the beginning of the school year. The organizational ladder in 1982-83 was thus modified as presented in Figure 1.

The project director was directly supervised by the assistant principal for bilingual education and foreign languages, and was responsible for all administrative program duties, in addition to directly supervising all Title VII staff working directly for the Enrichment

FIGURE 1

ENRICHMENT PROGRAM STAFF ORGANIZATION


(PRINCIPAL)
ASSISTANT PRINCIPAL FOR BILINGUAL EDUCATION AND FOREIGN LANGUAGES
TITLE VII PROJECT DIRECTOR
(BRANDEIS BILINGUAL INSTRUCTIONAL STAFF)
TITLE VII ENRICHMENT COORDINATOR AND E.S.L./S.A.T. INSTRUCTOR
COLLEGE ADVISOR
2 S.A.T. INSTRUCTORS: 1 MATH, 1 E.S.L.
BILINGUAL SECRETARY
3 PARAPROFESSIONALS

— — solid line indicates direct supervision

----- dotted line indicates communication or advisory capacity

( ) parentheses indicate staff functioning wholly outside Enrichment Program funding and supervision

Program (the enrichment/evaluation coordinator, college advisor, two S.A.T. teachers [who also answered directly to the assistant principal], three paraprofessionals, and the bilingual secretary).

Unlike the previous year, the enrichment/evaluation coordinator carried only minimal administrative duties, a change due, in part, to her being required to teach two E.S.L. classes. In addition to these new teaching tasks, the coordinator (with the college adviser and program director) was responsible for recruiting, testing, and planning cultural trips. Although her duties comprised a heavy schedule, the coordinator liked the return to instructional activity, and felt that the daily classroom contact with students was profitable for all involved.

The college advisor's function was also expanded in 1982-83, by requiring him to teach a biology class, and because a larger group of twelfth graders needed college entrance counseling (in addition to his eleventh-grade counseling tasks). His schedule for the year was, in fact, heavier still because he was required to spend 25 percent of his time counseling students in the greater bilingual program (due to cuts in Title VII Enrichment Program monies, one-quarter of his position was supported with tax-levy funds). Additionally, because of 1982-83 funding for college trips, the advisor was required to organize these vital activities as well. The project director admitted that communication often broke down with the college advisor, attributing this particular difficulty to the fact that the three staff members (project director, enrichment coordinator, and college advisor) did not share the same or linked office space. She acknowledged with

considerable disappointment that with the termination of the Enrichment Program, the college advisor position would be eliminated, and strongly recommended that the high school add this position to its regular administrative staff.

Both the S.A.T. instructors (for mathematics and E.S.L.) and the three paraprofessionals working within the Enrichment Program were funded solely through Title VII. Although paraprofessionals were not observed in the classroom, it was reported that they did help out in classes in addition to performing clerical duties.

Finally, a full-time bilingual secretary performed routine clerical duties in addition to disseminating information to and about staff and students (e.g., absence reports) and being "on call" to assist other secretaries in the school in translating for students. Appendix A presents the educational and experiential background of the professional staff serving program students.

For the remainder of the instructional staff, the Enrichment Program drew upon the larger faculty of the bilingual education and foreign languages department of the high school for classes in reading, native language, social studies, and science.

The following tables show the funding sources for the Enrichment Program's instructional and non-instructional components.

TABLE 5

Funding of Instructional Program Component[a]

Subject Area	Funding Sources	Number of Teachers	Number of Paraprofessionals
E.S.L.	Chapter I	5.0	4.0
	P.S.E.N.	1.0	1.0
	Chapter 268	0.4	
	Tax Levy	7.4	
	Title VII (S.A.T. Instructor)	1.0	1.4
Native Language	Tax Levy	2.8	
	Title VII		0.2
Mathematics	Chapter 268	0.2	
	Module 5B	1.2	
	Tax Levy	2.0	
	Title VII (S.A.T. Instructor)	1.0	0.8
Science	Chapter 268	0.4	
	Module 5B	1.8	
Social Studies	Module 5B	1.0	
	Tax Levy	2.4	

[a]Source. High School Personnel Inventory for Bilingual/E.S.L. Programs, April 7, 1983, Division of High Schools, New York City Public Schools.

TABLE 6

Funding of Non-Instructional Program Components

	Funding Sources	Personnel
Administration and Supervision	100% Title VII	Project Director
Supportive Services	60% Title VII	Enrichment/Evaluation Coordinator
	75% Title VII 25% Tax Levy	Bilingual College Advisor
Secretarial Services	100% Title VII	Secretarial Intern

PROGRAM PHILOSOPHY AND REORGANIZATION

Several teachers in the bilingual program spoke of two major changes that were occurring at the school: a change in educational philosophy (from a maintenance to a transitional theory of bilingual education) and a change in departmental structure (the integration of bilingual content-area courses with the high school's regular departments).

The school's intention to shift from a maintenance to a transitional mode of bilingual education was apparent to many of the bilingual faculty this year, and could not help but have a negative effect on the program's stability. Apprehension over what the near future would bring clearly affected the work of both students and staff.

Bilingual program teachers expressed concern that this change would weaken the bilingual department, and the principle of "mainstream as soon as possible" would leave behind large numbers of students whose English proficiency was simply not up to rapid transition to an all-English mode of instruction. One teacher in particular felt that, even though there are 1,000 students in Brandeis' bilingual department, "it is still small enough -- like a mini-school -- to ensure adequate communication. The students are comfortable [in the present structure]; they develop friendships easily; there's a sense of belonging; ... I feel this will be lost."

The assistant principal stated that after several cancellations, there had finally been meetings among the principal, the project director, and himself, and that they were now at a stage at which they could articulate a common educational philosophy in the area of bilingual education for the entire school -- both for the Enrichment Program and for the bilingual department at large. He asserted that a written statement of concensus on this matter would come forth and agreed that the provision of such a uniform guide was essential if staff unhappiness and conflict detrimental to bilingual students' progress were to be avoided. (This written statement was issued in June, 1983 and was submitted to the Office of Educational Evaluation after evaluation site visits had been completed. It is included as Appendix D.)

The school's general state of flux due to the upcoming closing of the 65th Street Annex, and the radical restructuring of the high school's departments that had to be planned for in 1982-83 certainly did not ameliorate interstaff difficulties. For example, the E.S.L./LAB admin-

istrator indicated with regret that other Brandeis faculty appeared to misperceive and to be misinformed about the Enrichment Program, citing as an example faculty reaction to certain aspects of the LAB test administration. She insisted, however, that bilingual faculty and staff were concerned and involved, and that adequate lines of communication existed. Her final remark was that the entire Brandeis faculty praised both Enrichment Program and general bilingual program students on their good attendance and in-class conduct.

Additionally, the project director, enrichment coordinator, and college advisor did not seem to work as well together this year as compared with last. Without question, internal communication among the three was somewhat impaired by the requirement that coordinator and advisor had classroom teaching responsibilities in addition to their other duties. Though their respective job descriptions were clear from the beginning of the fall semester, they did not seem to have been strictly adhered to until mid-year, when a structural tightening took place.

The assistant principal, however, believed that 1982-83 had witnessed better understanding of the Enrichment Program by regular bilingual instructors, largely because they could now provide input on student recommendations in the areas of preparedness and willingness to learn. Generally, however, he believed that "a greater effort should be made on the part of Title VII personnel to communicate with the rest of the department," and concluded, "No effort should be spared in keeping lines of communication open." For his part, the assistant principal believed that every possible effort had been made to include Enrichment

Program staff in bilingual department affairs in order that one or the other segment "won't be turned off."

On the matter of continuing the Enrichment Program's work after the program's end, the assistant principal observed that, since there will be "a definite shortage of trained personnel" in the areas of science and mathematics, Brandeis will have to "recondition" some of its instructional staff to teach these subjects. He felt that the adjustments the bilingual program would have to make would be beneficial, that it would be an advantage for content-area teachers to be expertly supervised by the corresponding assistant principal for their field, and he believed that collegiality among the faculty would result. He considered it advantageous that bilingual students would be getting into mainstream classes sooner.

IV. INSTRUCTIONAL COMPONENT

OVERVIEW

As noted in last year's evaluation report, Enrichment Program students -- whose special S.A.T. classes were supplementary to the bilingual department's wide array of offerings -- took bilingual "A-track" content-area courses geared to the Regents Examinations. Some also took required and elective courses in the mainstream. In 1982-83, as in 1981-82 Enrichment Program students in the ninth and tenth grades did all their course work with the regular bilingual students, participating directly only in the cultural activities of the Enrichment Program. Only after promotion to the junior year, and after further testing to determine their academic levels and qualifications (see 1981-82 evaluation report, p. 4), were students enrolled in the special S.A.T. college preparatory E.S.L. and mathematics classes.

INSTRUCTIONAL OFFERINGS

Tables 7, 8, and 9 present the E.S.L., native language, and content-area classes, as reported by the project director, in which Enrichment Program students participated in 1982-83. All classes were offered for five periods each week (except for some of the E.S.L. courses held for double periods).

Tables 7 and 9 include the special S.A.T. college preparatory classes in E.S.L. and mathematics. Curriculum used in these courses included a general syllabus (with special topics of instruction) and, for E.S.L., vocabulary worksheets, reading skills material, daily lesson plans, and unit tests for reading and final examinations.

TABLE 7

Instruction in English as a Second Language and English Reading

Course Level	Number of Classes Fall	Number of Classes Spring	Average Class Reg. Fall	Average Class Reg. Spring	Class Pds. per Week	Description	Curriculum or Material in Use
ESL 1	5	5	32	20	10	Beginning Level I	Intercom I
ESL 2	5	7	22	18	10	Beginning Level II	Intercom II
ESL 3	8	5	22	20	10	Intermediate Level	Intercom III
ESL 4	1	3	22	22	10	Intermediate Level	
E5TA	4	3	26	27	10	Advanced Level Transition 1 half Academic	
E5TC	1	1	20	25	10	Advanced Level Transition 1 half General	
EPM/2	1	1	16	16	10	Pre-Transition Level: for incoming Jr. H.S. students	
E6TA	3	3	20	23	5	Advanced Level Transition 2 half Academic	
E6TC	1	1	23	27	5	Advanced Level Transition 2 half General	
ELSP[a]	2	1	17	29	5	E.S.L.-S.A.T. Prep Course	Teacher-made curriculum as well as commercial college preparatory materials
ELR1	3	3	29	17	5	These reading classes correspond	
ELR2	4	4	27	28	5	to E.S.L. 1-4 grammar classes.	
ELR3	6	5	28	18	5	" "	
ELR4	1	2	22	32	5	" "	

[a]Class is exclusively for Enrichment Program students.

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TABLE 8

Instruction in the Native Language

Course Title and Level	Number of Classes Fall	Spring	Average Class Reg. Fall	Spring	Description
NLAX	1	1	21	10	Remedial courses taken together
S1S	1	1	32	24	" "
S2S	2	1	34	28	Remedial
S3S	3	3	34	25	For Hispanic students enrolled in bilingual program who have come from feeder schools or are new arrivals
S4S	1	2	34	30	
S5S	2	1	28	16	
S6S	1	2	16	20	" "
S7/8S	2	1	17	19	" "

TABLE 9

Bilingual Instruction in Subject Areas[a]

Course Title	Number of Classes		Average Register	
	Fall	Spring	Fall	Spring
Am.Hist.I Academic	3	2	32	22
Am.Hist.I General	2	1	21	22
Economics	1	1	30	26
Global History I	5	3	30	36
Global Hist.II Aca.	3	4	26	25
Global Hist.II Gen.	2	1	17	30
Global Hist. III Aca.	2	-	19	-
Global Hist.III Gen.	1	1	20	18
Fundamental Math 1	4	2	28	21
Fundamental Math 2	4	4	36	32
Fundamental Math 3	3	3	26	30
Fundamental Math 4	2	2	20	24
Algebra A	2	2	34	25
Algebra B	2	2	29	25
Algebra C	1	1	26	25
Enrichment Math[b]	1	1	13	20
General Sci. (9th yr)	4	3	27	23
General Sci. (9th yr)	1	1	16	27
General Science (10th yr)	1	2	20	17
Biology (Academic)	3	2	29	34
Biology (Academic)	2	2	21	28
Biology (General)	2	2	23	16
Biology (General)	1	1	26	20

[a]Content-area courses are taught in Spanish. In addition, in biology 2J academic students are given English vocabulary relevant to the course. All textbooks are in Spanish with the exception of the texts for academic biology 2J and the American history 1 courses.

[b]Class is exclusively for Enrichment Program students.

CLASSROOM OBSERVATIONS

Four classes were visited while the program was in session: one Enrichment Program S.A.T. course, and three content-area courses (history, mathematics, and biology) from the general bilingual program offerings.

The first class observed, S.A.T./E.L.S.P. (E.S.L.) course, had a register of 29 students, 25 of whom were in attendance. The class was taught by the Enrichment Coordinator (one of two classes taught by this individual, in addition to program duties). The classroom was pleasant in appearance, adequate both in space and lighting. It was conducted quite informally, in an animated but orderly fashion. Ninety-five percent of class time was allocated to teaching, w th a few minutes devoted to announcing an upcoming essay competition, the visit of a New York University admissions counselor, and distributing Tuesday's New York Times.

The lesson concentrated on analogies -- a topic on which the class had been working for some time, and on which they had previously been assigned homework. Eighteen different categories of analogous relationships were outlined on the chalkboard, and the teacher carefully provided sufficient drill time in the context of a series of questions addressed to the class and to individual students in preparation for homework exercises. A list of six ways to solve for the correct relationship was also written on the board but could not be adequately presented for lack of time; the observer persumed that the lesson would be continues when the class next met. At the conclusion of the lesson, the teacher assigned two items of homework: a worksheet of 25 word

relationships to be completed for the next class meeting, and an E.L.S.P. supplementary vocabulary list for memorization.

The class was conducted entirely in English, and there was no educational assistant present. Generally the teacher's classroom technique stressed student involvement; several students were responding at an orderly but rapid pace. In the light of the teacher's obvious experience, the observer assumed that more time was normally devoted to exploring students' responses than was the case in this particular session.

Several groups of students from this class were interviewed informally after class, and while they were most complimentary of the course, and indicated that they had learned a great deal from it, they also remarked upon the difficulty of this current work on analogies.

An American and world history class, taught by the assistant to the chairman of the bilingual department, was also observed. There were 17 students present (two having just returned after long absence) out of 19 on the register. The classroom was spacious and generally pleasant in appearance, with several maps hanging on the walls, stocked bookshelves, and chalkboard, all of which the teacher used effectively in class. There was no educational assistant in the room.

The lesson was taught in Spanish to bilingual students of varying English proficiency levels, but the textbook used was in English (Exploring Our Nation's History). The lesson objective, map interpretation, was clearly indicated on the chalk-board in Spanish. One hundred percent of class time was allocated to instruction.

The teacher varied his technique throughout the class, sometimes addressing students as a group (lecturing, pointing to the map, and questioning) and at other times having individuals work independently with or without his assistance. Most of the classwork was done in students' books and notebooks, while the teacher checked and reinforced individual work and made general comments when necessary. There were no interruptions during the lesson, which was presented in an orderly and well-structured manner, and was received by students in a somewhat subdued and quiet fashion (it being the first school day after a long weekend!).

The teacher made a point of involving not only those students who were eager to demonstrate their knowledge (answering questions, going to the board or the wall maps), but also those who were hesitant to respond (though he did not persist if they declined the challenge). Several of the latter did, in fact, respond to his attempts to draw them out. The teacher frequently gave feedback on students' oral and written efforts, hesitating as a cue for students to probe further. In general, code-switching was minimal on either part, and students called the instructor "teacher" only as an attention-getting device. At the lesson's conclusion, the teacher collected homework and gave a new assignment based on three additional questions written on the board. It should be added that throughout the session, the teacher addressed the students respectfully as "senorita" and "senor."

After class, the observer was informed that the teacher expected a minimum level of achievement from all students in the class, with correspondingly higher expectations from those individuals whose linguistic and content-area background enabled them to do more advanced work. He indicated that one-third of the students were doing outstanding work, one-third fairly good work, and one-third doing rather poorly -- the last being principally due to absenteeism, and not to lack of ability. "There is no excuse," the teacher remarked, for students who did not do well in testing conducted in English, since at the E.S.L. 3 level there was translation of content-area material into Spanish in every lesson.

A bilingual mathematics class of 24 ninth, tenth, and eleventh graders was also observed. The class population included several Enrichment Program students, whose English language proficiency ranged from beginner to E.S.L. 4. The class was taught primarily in Spanish by a non-native speaker who occasionally switched to English when reviewing, identifying, or naming.

The lesson topic was investment problem solving using one or two variables. Seven problems assigned as homework, were drawn from a standard ninth-grade algebra text. The lesson was conducted in a quiet, orderly, highly structured fashion, yet without being subdued or excessively formal in tone. One hundred percent of class time was allocated to teaching. After an extensive vocabulary list had been explained, two practice problems were introduced. There was generous feedback in Spanish to student responses by the teacher. A few students asked questions themselves, about half the class answered

questions posed by the teacher or other students, and most of the students performed in-class lesson-related tasks. The teacher's basic technique was demonstration, followed by questions addressed to the class as a whole, and the lesson objective was clearly demonstrated and -- by period's end -- understood, as evidenced by students' responses.

Following the class, the observer was informed that this teacher had personally translated a pamphlet of word problems into Spanish in order to provide additional material for beginning bilingual students. In quiet desperation, he commented that students come to the program with incredible deficiencies in basic skills, that instruction in the regular bilingual program was mostly remedial, and therefore he was forced to develop different expectations for different groups of students within the same class. "It is hopeless," he continued, "to try to bring everybody to the same level," and noted that in his class, a figure of 75 percent passing the class was the most he could expect.

The final observation was of a first term biology class, attended by students from ninth to eleventh grades, with most of the students coming from the tenth grade. There were 22 present out of an enrollment of 27; two left the class at the beginning of the period with special permission.

In a spacious laboratory classroom, with long tables and good lighting, the class was conducted in both Spanish and English, with emphasis on the former. English was used by the teacher primarily to open the class, to give certain directions and information, and to explain particular problems. Interestingly enough, she tended to use English for informal directions, but switched to Spanish for subject-

related activities. Students themselves addressed the teacher in English. The teacher, a former E.S.L. instructor with a bilingual biology license, stated that students tend to try to use English both orally and for written work, particularly in essay assignments because of the content emphasis. Students reportedly feel more confident writing on scientific topics in English because they have learned technical terminology in its English form.

The lesson's instructional objective was to describe the adaptations to function of a root system, and the teacher used questions and demonstration to convey the essential topic points. The observer was fascinated by superb color sketches which the teacher drew on the chalk-board to illustrate the three zones of the root system's function. The class began with a "do now" exercise, answering four questions from the board and filling in blanks on a grid. While the class atmosphere was animated, informal, and indeed a bit disorderly, the lesson was nonetheless well-structured and succeeded in involving most of the students present. Some asked questions or commented on the topic, while most performed all the required in-class tasks. One hundred percent of class time was allotted to teaching, and feedback was frequent. The homework assignment was written on the board, taken from the class textbook (Smallwood and Green, Spanish Biologia) which was on the appropriate academic level for these particular students. The teacher explained that students did their homework in Spanish this year, but that next term (Biology 2) -- though the language of instruction would continue to be Spanish -- textbook and homework would be in English; in Biology 3, instruction would also be given in English.

V. NON-INSTRUCTIONAL SERVICES

GUIDANCE

In an interview, the Enrichment Program college advisor pointed out that the program was much better organized this year than last, due to the experience gained from last year's spring semester. Two administrative problems still remained: the logistical difficulty of communicating with students in a program that had no classroom space of its own, and the constant and time-consuming task of writing daily passes for students involved in cultural and collegiate activities away from school.

The college advisor noted a considerable and positive change in Enrichment Program students' behavior, and attributed this growth to program activities, noting, however, that it was difficult to measure this sort of progress with existing instruments. "We're dealing with the development of human beings," he remarked. The college advisor also observed (as did the assistant principal) that "cultural enrichment" was without question occurring, and that students' taste for a variety of performing arts had grown far more sophisticated. "In this sense," he continued, "I would say that the program has been a complete success," and wished that it had been available to all Brandeis students. He believed that student awareness of the program had increased this year, even for those untouched by its various activities. Enrichment students themselves reacted better to messages, attended more meetings (with little coercion), and had learned to be selective about the events

they attended. In short, the only weakness he noted was the continued shortage of funds, preventing the program from reaching out to more students and sponsoring more college visits.

When asked about the upcoming changes at Brandeis, the college advisor admitted he had little knowledge of how the bilingual department was to be restructured, although he was aware that the annex was closing and its students "coming uptown." He expressed the hope that the school would still be in need of his own services (as a third college advisor) when the Enrichment Program ended. Appendix R presents a detailed report on the guidance services offered to Enrichment Program students.

STAFF DEVELOPMENT

Enrichment Program staff attended monthly administrative meetings to discuss program activities and to receive information on new teaching techniques. Outside school activities included attendance by the project director at the Title VII Institute and the NABE conference in Washington, D.C. The project director was also a presenter at an O.B.E.-sponsored proposal writing workshop. University coursework was limited to advanced stenography at New York University and courses toward an associate's degree at La Guardia Community College.

PARENTAL INVOLVEMENT

According to the college advisor, parental involvement increased considerably over the previous year, and was far greater for the Enrichment Program than for the bilingual department at large. The principal reasons for the program's good record in this area are thought to be "parents' satisfaction with their children's inclusion

in a special academic program, the program staff's consistent efforts since 1980 to involve parents in the policy-making process, and the solicitation of parental consent to the placement of students in the program" (1981-82 report, p. 25). In 1982-83, parents were even more aware of program activities (it being the second funded year of operation), and parental response to three parent meetings was quite good. At these meetings, parents discussed self-selected topics related to the program's goals and received information on the enrichment classes, college application procedures, and upcoming cultural activities. All meetings ended with a question and answer session. Hispanic parents, as one administrator observed, value higher education and are especially enthusiastic about their children attending the theatre and opera with their school.

STUDENTS' EXTRACURRICULAR ACTIVITIES

Enrichment Program students turned out for extracurricular activities in much larger numbers in 1982-83 than previously, although a core of about 75 program students was always involved in these areas. Such cultural activities included trips to museums, special exhibits, the theatre, and the opera. All program students saw at least two plays, and honors students were taken to Showboat at the end of the spring term. Each activity was preceded by a workshop, with dissemination of comprehensive information packets on the upcoming event, and was followed-up by various projects. (So accustomed, in fact, did students become to follow-up work on cultural outings that the day after the honors students attended Showboat [two days before the

last day of school], one student submitted an unsolicited essay embodying her impressions of the show, to her E.S.L. teacher.)

In addition to cultural activities, with preliminary and follow-up procedures, Enrichment Program students attended a number of educational workshops and conferences (including a three-hour career education workshop for female students sponsored by the Carnation Corporation). The re-activation of the Brandeis chapter of Aspira (see interview with project director) figured prominently in Enrichment Program students' extracurricular activities, and letters were written to the area's congressional representative, requesting extension of the Enrichment Program so that other students could benefit from its special approach to bilingual education. Finally, one eleventh-grade and five twelfth-grade Enrichment Program students participated in the school's Spanish drama club, calling themselves "Abriendo Caminos" (literally building highways).

College Trips

Eighteen Enrichment Program students visited three colleges during the 1982-83 school year: Long Island University (C. W. Post Center), New York Institute of Technology (on Long Island), and the New York University College Fair. Four workshops were also scheduled in March to discuss the following topics:

-- college visits (for eleventh and twelfth graders);

-- what to expect in the twelfth grade (for eleventh graders);

-- what are the P.S.A.T. and S.A.T. (for tenth graders);

-- academic average and a good college (for ninth graders).

In addition, on March 17th, Enrichment Program twelfth graders attended a discussion meeting on acceptance/rejection letters from colleges (when they should arrive and what to do about them); financial packages from colleges (what they are and what to do about them); and F.A.F., TAP, C.S.A.F., and other sources of school grants.

AFFECTIVE DOMAIN

Students' Attitudes and Behavior

According to staff, Enrichment Program students not only developed a sense of appropriate dress and behavior for certain formal functions as a result of their exposure to the program's cultural component, but far more importantly, developed a sensitivity to music, drama, and the arts, and their own maturing self-image. The assistant principal declared that he fully agreed with the rest of the Enrichment Program staff in their assessment of the program as a distinct success. He was especially enthusiastic about the cultural component and drew attention to a letter of high praise for Enrichment Program students from an educator at the Metropolitan Museum of Art. He did express regret, however, that no provision had been made for publishing students' own letters, notes, and other means of rating the cultural component trips.

Despite feeling somewhat ambivalent about bilingual programs in general (on the grounds that they sometimes isolate students), the E.S.L./LAB administrator had a number of positive comments to make on the Enrichment Program and its students. According to this administrator, Enrichment Program students were better able to deal with writing tasks than general bilingual program students, and he noted particularly their creativity in composition and confidence about subject matter. They were less dependent,

more interested in helping themselves, and were more verbal and self-motivated; they appeared to be more serious about the future, and had a better idea of what was possible. They seemed to adapt more easily to American culture and were more serious about learning, used English more and spoke it more fluently, read more and primarily in English -- not depending upon translations. By the end of the spring semester, 46 students had left the program: 39 students graduated, six returned to their native countries, and only one student dropped out of school.

Academic Honors

Nineteen Enrichment Program students made the honor roll in June, 1982 (as a reward, they were taken to the Broadway musical Chorus Line). Nine program students were inducted into the Arista Society for excellent scholarship, excellent character, and outstanding service to the school. An eleventh-grade student nominated for honors as an overall outstanding student placed fourth in the Pan American Essay Contest, and was also second place winner in the National Spanish Examinations, sponsored by the A.A.T.S.P. (Two other Enrichment Program students also participated in the examinations.)

Student Interviews

At the request of a member of the evaluation team, a group of students shared their impressions of the Enrichment Program. The group included three twelfth graders from El Salvador (a young woman planning to enlist in the Marine Corps, a young man entering City College in the fall to study architecture, and a student who attended only the S.A.T. Enrichment Program classes, and was planning to enter La Guardia

Community College in the fall), one eleventh and two tenth graders from Puerto Rico, and a tenth grader from the Dominican Republic. All stressed how proud their parents felt of their participation in the program and all acknowledged the value of the program's cultural trips. Other positive comments included high praise for the S.A.T. courses, excellent preparation which students received for various activities, and the care staff had shown to students. One student worried about funding cuts, "...because there are a lot of younger people who need to improve." Another student thought that the college advisor was too busy, and felt a need for additional advisement on financial aid. All three seniors planned to come back to visit after graduation.

VI. FINDINGS: STUDENT ACHIEVEMENT AND ATTENDANCE

ASSESSMENT PROCEDURES, INSTRUMENTS, AND FINDINGS

The following section presents the assessment instruments and procedures used in evaluating program objectives. One such objective stated that after two years in the program, students enrolled in mainstream English and reading classes would demonstrate a statistically significant improvement between pre- and post-tests on the New York City Reading Test. Since the program has just completed its third term of operation, the evaluation of this objective cannot yet be performed.

ENGLISH LANGUAGE FLUENCY

English language fluency was assessed through the use of the New York City Oral Language Ability Scale (see Appendix C). Students were pre- and post-tested on both the receptive and expressive modes of the test. Rating for the receptive scale range from "A" to "F" (high to low) and ratings for the expressive scale range from "1" to "6" (high to low).

Analyses performed were based upon the program objective stating that students rated "4-6" and "D-F" would improve an average of one scale point between pre- and post-testings for both the receptive and the expressive modes. Table 10 presents the data analyses for these fluency scales. In addition to the average improvement rate for "4-6" and "D-F" rated E.S.L. students, the data have been broken down by the initial (pre-test) rating level in an effort to pinpoint exact areas of improvement.

Program evaluation criteria stipulated an overall improvement of at least one scale point in the receptive and expressive modes. As Table 10 indicates, students met this criterion in the expressive mode gaining an average of 1.24 scale points. The average gain in the receptive mode was 0.77 scale points, thus falling short of the criterion. These results are somewhat problematic as they seem to indicate that program students made more progress in speaking than in understanding English. Given this counter-intuitive finding and the fact that these ratings represent teacher judgements (which may vary), these results should be interpreted with great caution.

TABLE 10

Number and Percent of Students Advancing One Level or More in the Expressive and Receptive Modes on the Rating Scale of Pupil's Ability to Speak English

Expressive Mode

Pre-Test Level	N	Percent Advancing at Least One Level	Actual Post-Test Level 6	5	4	3	2	1
6	1	100.0	0	0	0	1	0	0
5	14	92.86		1	11	1	1	0
4	14	78.57			3	6	4	1
TOTAL	29	86.21	Average number of scale points gained: 36/29 = 1.24 scale points					

Receptive Mode

Pre-Test Level	N	Percent Advancing at Least One Level	Actual Post-Test Level F	E	D	C	B	A
F	1	100.0	0	1	0	0	0	0
E	14	85.77	0	2	11	1	0	0
D	30	70.00	0	0	9	21	0	0
TOTAL	45	75.56	Average number of scale points gained: 35/45 = 0.77 scale points					

ACQUISITION OF ENGLISH SYNTAX

The assessment instrument utilized for measuring achievement in this area was the Criterion Referenced English Syntax Test (CREST). The CREST was developed by the New York City Public Schools to measure mastery of instructional objectives of the E.S.L. curricula at the high school level. There are four items for each objective, and mastery of an objective is achieved when three of the items are answered correctly. The test has three levels: beginning (I), intermediate (II), and advanced (III). The maximum score on Levels I and II is 25, while the maximum score on Level III is 15.

Mean differences between pre-test and post-test are calculated to represent the gain score, and an index which represents the number of objectives mastered per month is computed. However, since the levels are not equated vertically, it is impossible to measure gains for students who change levels. Extensive information on CREST objectives and psychometric properties appears in the Technical Manual, New York City English as a Second Language Criterion Referenced English Syntax Test.*

The CREST was administered at the beginning and end of both the fall and spring semesters. Table 11 presents the test results for students who were pre- and post-tested with the same test level during each semester. Data were missing or incomplete for 133 students in the fall and for 156 students in the spring. Fall pre-test scores numbered 79 dropping

*Board of Education of the City of New York, Division of High Schools, 1978.

the sample to 40.72 percent of its original size. Of these, an additional 9.28 percent (n=18) had other missing data preventing their inclusion in the analysis. The available data were even less for the spring. Only 38 cases (19.5 percent) were reported as having post-test scores.

Examination of Table 11 reveals that in the fall, an average of approximately 2.13 CREST objectives per month was mastered by students who were tested on Levels I and II. The rate of mastery for students who were tested on Level III was approximately 0.69 CREST objectives per month. In the spring, students who were tested on Levels I and II mastered an average of 1.46 CREST objectives per month, while students tested on Level III mastered 0.52 objectives per month. Students administered Levels I and II of the CREST in both fall and the spring mastered, on the average, the 1.5 objectives per month established as the criterion level. Individuals receiving CREST Level III in both the fall and the spring, on the other hand, did not meet the criteria.

Inspection of the CREST Level III score distributions for both the fall and spring semesters shows that 35.14 percent and 44 percent respectively, of the students demonstrated pre-test mastery of 80 percent of the Level III CREST objectives. As a result, there was little or no opportunity for students to score higher on the post-test. Consequently, the observed mastery rates probably underestimate the true mastery rate due to the "ceiling effect" observed in Level III of the CREST.

TABLE 11

Results of the Criterion Referenced English Syntax Test

(Program Students, Pre- and Post-Tested on Same Test Level)

Test Level	Number of Students	Average Number of Objectives Mastered Pre	Post	Objectives Mastered*	Average Months of Treatment	Objectives Mastered Per Month
			Fall			
I	11	7.64	14.55	6.91	2.87	2.43
II	13	16.23	21.54	5.31	2.87	1.83
III	37	10.54	12.54	2.00	2.90	0.69
TOTAL	61	11.23	14.82	3.59	2.89	1.25
			Spring			
I	3	15.67	21.67	6.00	3.84	1.56
II	10	14.20	19.40	5.20	3.89	1.36
III	25	11.56	13.56	2.00	3.86	0.52
TOTAL	38	12.58	15.74	3.16	3.86	0.82

*Post-test minus pre-test.

NATIVE LANGUAGE READING AND COMPREHENSION

The assessment instrument used to measure gains in reading and writing in Spanish was the Prueba de Lectura, Level 4, Forms C and D. The Prueba de Lectura is part of the Interamerican Series of Tests published by Guidance Testing Associates. The purpose of the series is to evaluate achievement in English and in Spanish for Spanish-speaking students from the Western hemisphere. Test items were selected for cultural relevance to both Anglo and Hispanic cultures.

The levels of the Prueba de Lectura, Forms CE and DE, correspond to the following grades:

Level	Grades
1	1-2
2	2-3
3	4-6
4	7-9
5	10-12

However, the publishers recommend that local norms be developed for the tests. Information on psychometric properties may be found in Guidance Testing Associates Examiner's Manual, Prueba de Lectura, St. Mary's University, One Camino Santa Maria, San Antonio, Texas 78284.

The Prueba de Lectura was administered in the fall and again in the spring. The pre- and post-test raw score means and standard deviations are presented in Table 12. Data for both tests were available

for 111 program students (64.53 percent of the total). Statistical significance was determined through the application of the correlated t-test model to demonstrate whether the difference between pre-test and post-test mean scores is larger than would be expected by chance variation alone.

Another index of improvement, the effect size (E.S.) was computed by dividing the mean differences by the standard deviation of the difference between pre-test and post-test scores. This provides an index of improvement in standard deviation units regardless of the sample size and a change of 0.5 standard deviations or higher is generally considered to be a meaningful change.

The performance of program students as a whole was found to be both statistically ($p=<.001$) and educationally ($z=0.39$) significant. Thus, the program objective, that students' post-test scores would be significantly greater than their pre-test scores at the 0.05 level of significance was met. An examination of scores for each grade reveals that students in grades ten and eleven show significant gains between pre- and post-testings ($p=.001$), while the gains for students in grade twelve are non-significant. Data for grade nine are presented, but because there are only four cases, any interpretations should be made with caution.

TABLE 12

Native Language Reading Achievement

Significance of Mean Total Raw Score Differences Between Initial and Final Test Scores of Students with Full Instructional Treatment on the Prueba de Lectura, Level 4, by Grade

		Pre-Test		Post-Test						
Grade	N	Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	Corr. Pre/post	T-test	Level of Significance	Educational Significance
9	4	44.75	22.20	53.00	19.61	8.25	.991	4.37	.022	2.18
10	22	63.55	15.73	70.64	14.55	7.09	.837	3.82	.001	0.81
11	49	61.12	16.50	66.88	17.16	5.76	.749	3.37	.001	0.48
12	36	67.36	12.51	67.78	15.98	0.42	.717	0.22	NS	0.04
TOTAL	111	63.04	15.79	67.41	16.45	4.38	.760	4.13	.001	0.39

STUDENT ACHIEVEMENT IN MATHEMATICS, SCIENCE, AND SOCIAL STUDIES

Table 13 presents the passing rates for program students enrolled in mathematics, science, and social studies courses by grade in the fall and spring.

The overall passing rates of students who were reported as enrolled in mathematics classes were 83.7 percent in the fall and 81.8 percent in the spring. The overall passing rates in science courses were 87.7 percent in the fall and 75.6 percent in the spring. Finally, the overall passing rates in social studies courses were 81.8 percent in the fall and 73.6 percent in the spring.

In all cases the proposed objective that at least 70 percent of the participants would receive passing grades was surpassed.

TABLE 13

Number of Program Students Attending Courses and Percent Passing Teacher-Made Examinations in Content-Area Subjects[a]

Content Area	Grade 9 N	Grade 9 % Passing	Grade 10 N	Grade 10 % Passing	Grade 11 N	Grade 11 % Passing	Grade 12 N	Grade 12 % Passing	Total N	Total % Passing
Fall										
Mathematics	15	86.7	34	85.3	66	84.8	57	80.7	172	83.7
Science	14	92.9	26	100.0	52	88.5	46	78.3	138	87.7
Social Studies	10	90.0	28	82.1	66	75.8	55	87.3	159	81.8
Spring										
Mathematics	20	80.0	37	78.4	67	88.1	46	76.1	170	81.8
Science	15	80.0	32	78.1	59	81.4	29	58.6	135	75.6
Social Studies	20	85.0	35	71.4	60	80.0	25	52.0	140	73.6

[a]Mathematics courses include pre-algebra, algebra, geometry, business math, S.A.T. preparation, eleventh-year math, and computer math. Science courses include general science, biology, chemistry, physics, and "other." Social studies courses include economics, American history, and world geography.

OTHER FINDINGS

As stated in the evaluation plan, 60 percent of the program participants were expected to pass the New York State Algebra and Geometry Regents Tests. Seventy percent of the students taking the algebra test and 72 percent of the students taking the geometry test received passing grades, thus meeting the established criteria.

The program also proposed that at the end of the eleventh grade students participating in the program would demonstrate statistically significant growth beyond the 0.05 level of probability between pre- and post-testing on program-developed tests patterned after the English and Mathematics Scholastic Aptitude Tests.

Table 14 presents the results of the analysis. For both the English and math content areas the criterion was surpassed (p's $\leq .001$). An additional index, effect size, was computed to provide a measure of improvement irrespective of sample size (computational procedures and possible interpretations are provided in the section evaluating native language achievement). As seen in Table 14, the gains of eleventh-grade students reached substantial educational significance.

TABLE 14

Achievement in English and Mathematics

Significance of Mean Total Raw Score Differences Between Initial and Final Test Scores of Students with Full Instructional Treatment on Program-Developed Instruments, Patterned after the English and Mathematics Scholastic Aptitude Test, by Grade and Test Level

Content Area	N	Pre-Test Mean	Pre-Test Standard Deviation	Post-Test Mean	Post-Test Standard Deviation	Mean Difference	Corr. Pre/post	T-test	Level of Significance	Educational Significance
English	37	11.11	3.82	15.59	3.05	4.49	.31	6.68	.001	1.10
Mathematics	22	8.86	4.76	23.68	7.07	14.82	.31	9.67	.001	2.06

STUDENT ATTENDANCE

Although not proposed in the evaluation plan, the average total attendance rate of program students in (n=167) is presented and compared with the school-wide attendance rate (n=2,872) in Table 15. Since the attendance rate for program students was included in the school-wide attendance rate, a special procedure was used in computing the usual statistical test for a significant difference between two proportions. In the z test formula below, p is the attendance rate for program students and P is the expected proportion (the school's attendance rate).

$$z = \frac{p - P}{\sqrt{\frac{PQ}{n}}}$$

Program students were found to attend school at a significantly higher rate ($p \leq .01$) than the total student body.

TABLE 15

Significance of the Difference Between the Attendance Percentage of Program Students and the Attendance Percentage of the School

Grade	Number of Students	Mean Percentage	Standard Deviation
9	15	95.20	3.51
10	33	96.42	4.72
11	64	96.27	3.10
12	55	94.80	3.65
TOTAL	167	95.72	3.72

Average School-Wide Attendance Percentage: 78.30

Percentage Difference = 17.42 z = 3.2 p = .01

VII. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

In its last year of operation, the Enrichment Program offered supportive services and enrichment activities to 175 students in the fall and 159 students in the spring. Program administration and teaching staff, students, and bilingual department personnel not directly connected with the Enrichment Program, regarded the program as a success. This opinion appears to be supported by the statistics available to date on the program. Most program objectives were met, with the exception of its inability to reach the proposed number of students to be served (250). It should be noted, however, that the program's enrollment did increase by 55 and 39 in the two semesters of the 1982-83 school year respectively, as compared with its spring 1982 enrollment of 120.

The program continued to promote awareness and appreciation of the positive role of bilingual education among the Brandeis faculty. In addition, 1982-83 saw a significant increase in the level of cooperation elicited from the Brandeis bilingual faculty, largely because they were given the opportunity to recommend which students were to be included in the program.

The Enrichment Program produced an unusually high number of honors students (in comparison with the school as a whole), as well as numbers of participants in essay and poetry competitions in both English and Spanish, and contributed significantly to the student leadership of school clubs and other student-organized extracurricular activities.

Enrichment Program attendance was again exceptional this year; it is clear that program students were highly motivated to pursue college education and career preparation with real seriousness of purpose. Many college-bound seniors (who had received financial assistance packages from their respective colleges) vowed to return and visit the program as witnesses of its effects.

The most visible (and least measurable) result of the Enrichment Program, however, was the difference it made in students' social behavior (both in attitude and in dress), coupled with its contribution to the development of an appreciation for, and critical discernment toward, literature, music, and the visual and performing arts in bilingual students.

In particular, the project director pointed to the program's focus on job-seeking skills, and its exposure of young minority women to career possibilities. Furthermore, the director felt that Enrichment Program activities had strengthened the bond among all Hispanic students. The project director herself had organized the re-activation of Brandeis' local chapter of the "Aspira Club." The director was particularly pleased with an unplanned side-effect of the program, namely the close involvement of teaching staff in the program's special activities and their cooperativeness in helping to organize such activities -- an important ability for the future, when additional funding will not be available. Finally, she concluded that the bilingual student has grown in sophistication through exposure to the monolingual mainstream thanks to the Enrichment Program. As a result, all three -- "the newly arrived, the longer-resident Hispanic, and the mainstream monolingual -- learn from each other."

RECOMMENDATIONS

1. Regardless of the state of program funding in 1983-84, it is recommended that the high school and bilingual department make every effort to continue in some form both the program's cultural activities, and its special S.A.T. math and E.S.L. classes, as an integral part of the high school's bilingual services. The experience and curriculum development which the Enrichment Program has already made available should make such a continuation possible. It is vital that the city's oldest and largest bilingual department not neglect these special services to its most promising bilingual students.

2. The need for other schools to have in writing the benefit of the Enrichment Program's experience remains. It is recommended that some release time be given to the program director so that -- with the informal assistance of others -- she may edit such a handbook before the memory of the program's details grows dim.

3. In concurrence with many at Brandeis, the evaluation team strongly recommends that a bilingual school guidance counselor be identified so that the needs of the school's large Hispanic population may be adequately served.

4. Since the college advisor position is to be eliminated with the termination of the Enrichment Program, the school administration might consider adding this position to the regular staff.

5. Staff development activities were conspicuous by their absence. In subsequent Brandeis programs, it is recommended that care be taken to provide the means whereby teaching and administrative staff can stay abreast of professional and academic developments in their fields of expertise.

6. The bilingual administration at Brandeis is urged to continue to address the inter-staff difficulties and conflict over the methods and goals of bilingual education. Although some mutual discussion and resolution has taken place, the administration should use the school's statement of bilingual philosophy toward creating an atmosphere of consensus and cooperation so that the educational effort will realize its optimum potential.

VIII. APPENDICES

APPENDIX A

Staff Characteristics: Professional and Paraprofessional Staffs

Function(s)	% Time to Each Function	Date Appt. to Each Function	Education (degrees)	Certification	Licence(s)	Total Years Experience in Education	Years Experience: Bilingual	Years Experience: E.S.L.
Project Director	100	9/81	B.A. Zoology M.A. Spanish M.A. Admin/Super	N.Y.C. N.Y.S. N.Y.S.	Spanish - D.H.S. ESL D.H.S. Bilingual Bio D.H.S	16	11	16
Enrichment/ Evaluation Coordinator	60	9/82	B.S. M.A. Spanish M.A. Admin/Super	N.Y.C. N.Y.S. N.Y.S.	Spanish D.H.S ESL D.H.S	13	11	9
Enrichment Teacher	40	9/82						
College Advisor	75	9/82	B.A. Biology M.A. Biology	N.Y.C	Bilingual General Science/Earth Science D.H.S.	13	10	0
Bilingual Biology Teacher	25							

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APPENDIX B

Support Services Offered to Program Students (Fall and Spring)

TYPE OF SERVICE	DESCRIPTION	STAFF PERSON(S) RESPONSIBLE	FREQUENCY OF SERVICE OFFERED	LANGUAGE IN WHICH SERVICE IS OFFERED
COUNSELING • ACADEMIC	1. Student report cards reviewed 3x a term. 2. Students must explain any grade below 75 percent 3. Parent notified when student might fail a course.	Project Director	6 times a year or when student requests session.	Either Spanish or English depending on what makes the student and/or parent feel more comfortable.
• PERSONAL	Home problems, cultural conflicts Emotional-culture shock	Project Director	As often as student wants or needs.	Depends on situation and language student chooses.
CAREER ORIENTATION AND COLLEGE ADVISEMENT	Assistance in selecting colleges, filling out applications, financial aid forms, group and individual meetings	College Advisor	Ongoing throughout the school year.	English unless the student requests use of Spanish. Same when working with the parents.
REFERRALS OUT-OF-SCHOOL	Private agencies or hospitals	Project Director	Ongoing	Bilingually, when possible.

APPENDIX B

(Cont.). Support Services Offered to Program Students (Fall and Spring)

TYPE OF SERVICE	DESCRIPTION	STAFF PERSON(S) RESPONSIBLE	FREQUENCY OF SERVICE OFFERED	LANGUAGE IN WHICH SERVICE IS OFFERED
FAMILY CONTACTS				
• HOME VISITS	Parents and/or students where child is absent too frequently or having problems.	Project Director Enrichment Coordinator	As need arises	Spanish
• MAIL	Probable failure letters to parent followed by letter explaining the problem and asking the parent to contact the P.D.	Probable failure letter (subject teacher) Follow-up letter (Project Director)	At least 2 times a term	Spanish
• PROGRAM ACTIVITIES	Museums, concerts, opera ballet, theatre	Enrichment Coordinator	At least once a month	Pre-activity workshop Bilingual
• SCHOOL ACTIVITIES	Student meetings	Project Director	At least once every six weeks	Bilingually

APPENDIX C

New York City Public Schools
110 Livingston Street
Brooklyn, N.Y. 11201

LANGUAGE FLUENCY RATING SCALES:

SCALE A - For Rating Pupil's Ability to Speak English

Direction: Circle for each pupil the letter A, B, C, D, E, F, or G corresponding to his estimated ability to speak English in the classroom, defined as follows:

A. Speaks English, for his age level, like a native with no foreign accent or hesitance due to interference of a foreign language.
B. Speaks English with a foreign accent, but otherwise approximates the fluency of a native speaker of like age level. Does not hesitate because he must search for English words and language forms.
C. Can speak English well enough for most situations met by typical native pupils of like age, but still must make a conscious effort to avoid the language forms of some foreign language. Depends, in part, upon translations of words and expressions from the foreign language into English and therefore speaks hesitantly upon occasion.
D. Speak English in more than a few stereotyped situations, but speaks it haltingly at all times.
E. Speaks English only in those stereotyped situations for which he has learned a few useful words and expressions.
F. Speaks no English.
G. Child has been in class less than one week, and cannot be accurately rated at this time.

SCALE B - For Rating Pupil's Ability to Understand Spoken English

Directions: Circle for each pupil the number 1, 2, 3, 4, 5, 6, or 7 corresponding to his estimated ability to understand spoken English in the classroom, defined as follows:

1. Understand with ease and without conscious effort the spoken English of the classroom, typical for native English-speaking children of like age and grade level. Requires, on the part of the speaker, no slowing of pace, simplication of vocabulary, over-precise enunciation, repetition or illustration.
2. Understands spoken English with ease and without conscious effort in most situations, but occasionally must be helped to understand by repetition, illustration, or translation.
3. Understands English in connected sentences as well as in single words or phrases. However, must occasionally make a conscious effort to decipher and translate.
4. Understands phrases and simple connected discourse in English only if he has time consciously to decipher and if the speaker slows his pace and simplifies vocabulary.
5. Understands a few expressions and words which are repeated recurrently in stereotyped situations. Does not follow connected discourse in English.
6. Understands no spoken English.
7. Child has been in class less than one week and cannot be accurately rated at this time.

APPENDIX D

THE LOUIS D. BRANDEIS HIGH SCHOOL
145 WEST 84th STREET • NEW YORK, N. Y. 10024
Telephone: 799-0300

MURRAY A. COHN, Principal
HANNAH LEWIS
SIDNEY C. REISER
Asst. Principals

June 3, 1983

The Brandeis Bilingual Program is designed to provide instruction in Spanish in the content area subjects (mathematics, science and social studies) to Hispanic students of limited English proficiency as determined by the students' percentile rating on the LAB test while the students simultaneously are given intensive instruction in English as a second language. Upon completion of the ESL program, the students are fully mainstreamed and receive all instruction in English.

Frank A. Friuli
Assistant Principal

Approved: Murray A. Cohn
Murray A. Cohn, Principal